

071/2026

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total No. of questions : 100

Time : 1 Hour 30 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

071/2026

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. A fine earthenware which is white thin and semi-transparent is :
(A) Terra cotta (B) Porcelain
(C) Glass (D) Glazed tile
2. Choose the correct statement about bricks :
(A) The excess of lime in clay makes the brick brittle and weak
(B) The excess of silica in clay causes the brick to melt
(C) The presence of alkaline causes the brick to distort during burning
(D) The excess of alumina in clay makes the brick crack and warp on drying
3. The lime which contains more than 30% of clayey impurities :
(A) Pure lime (B) Fat lime
(C) Slaked lime (D) Poor lime
4. The type of texture of stone in which crystals of one or more minerals are large and predominant is called :
(A) Foliated (B) Granular
(C) Porphyritic (D) Glassy
5. Bricks moulded to the shape of a gutter and are very often glazed to function as drains is :
(A) Channel brick (B) Coping brick
(C) Cow nose brick (D) Curved brick
6. Water cement ratio is the ratio of
(A) The amount of cement by weight to the amount of water
(B) The amount of water to the amount of cement by weight
(C) The amount of coarse aggregate to the amount of cement by weight
(D) The amount of cement by weight to the amount of coarse aggregate

7. Choose the correct statement :
- (A) High alumina cement is used for cold weathers
 - (B) Blast furnace cement is used for making terrazzo flooring
 - (C) Pozzolana cement is popularly used in the construction of dam
 - (D) Sulphate resisting cement is laid under water
8. The concrete which consists of cement, coarse aggregate and water is called _____ concrete
- (A) Light weight
 - (B) No fine
 - (C) Pre-clay
 - (D) Water proofing cement
9. The example of silicious rock is :
- (A) Trap
 - (B) Marble
 - (C) Laterite
 - (D) Lime stone
10. Calcined clay pozzolana is known as :
- (A) Fly ash
 - (B) Blast furnace slag
 - (C) Surkhi
 - (D) Rice husk ash
11. _____ is defined as the minimum gross pressure intensity at the base of the foundation at which the soil fails in shear.
- (A) Gross pressure intensity
 - (B) Net pressure intensity
 - (C) Ultimate bearing capacity
 - (D) Net ultimate bearing capacity
12. _____ foundation is used where the soil mass contains compressible lenses or the soil is sufficiently erratic so that the differential settlement would be difficult to control.
- (A) Cantilever footing
 - (B) Grillage footing
 - (C) Raft foundation
 - (D) Combined footing
13. Brick whose one end is cut splayed and angle of splay may vary from 45° to 60° :
- (A) Queen closer
 - (B) King closer
 - (C) Bevelled closer
 - (D) Mitred closer

14. _____ is the projecting course at the upper part of a pier or abutment to stress the springing line.
- (A) Haunch (B) Crown
(C) Key (D) Impost
15. Brick layer's scaffolding is the another name of _____
- (A) Single scaffolding (B) Double scaffolding
(C) Needle scaffolding (D) Suspended scaffolding
16. Bearing of lintel should be minimum of
- (A) 10 cm (B) Height of lintel
(C) $1/10^{\text{th}}$ to $1/12^{\text{th}}$ span of lintel (D) All of the above
17. Gothic arch is the another name of _____
- (A) Flat arch (B) Segmental arch
(C) Pointed arch (D) Venetian arch
18. _____ pile is used where thin bearing stratum is reached with reasonable depth.
- (A) McArthur pedestal piles (B) Vibro-piles
(C) Franki pile (D) Simplex pile
19. _____ is a wooden panelling applied on masonry walls for a height of 60 cm from the floor level.
- (A) Studding (B) Veneering
(C) Wain-scot (D) Batten
20. _____ test is field test to determine the ultimate bearing capacity of soil, and the probable settlement under given loading.
- (A) Rankine's analysis (B) Terzaghi's analysis
(C) Plate load test (D) Dutch cone test

21. Hidden outlines, edges are drawn using _____ line.
- (A) Continuous Thick line (B) Continuous Thin line
(C) Dashed line (D) Centre line
22. A _____ line is drawn to connect a note with the feature to which it applies.
- (A) Leader line (B) Projection line
(C) Dimension line (D) Extension line
23. Inclined-Stroke letters lean to the right, making an angle of _____ with the horizontal.
- (A) 40 degree (B) 50 degree
(C) 65 degree (D) 75 degree
24. In a drawing letters and numerals are designated by their _____
- (A) Width (B) Height
(C) Thickness (D) None of the above
25. The length of an arrow head should be _____ times its width.
- (A) 3 (B) 5
(C) 8 (D) 2
26. An actual length of 5 m of a room is represented by 25 mm length on drawing, then representative fraction is _____
- (A) 1/100 (B) 1/200
(C) 1/500 (D) 1/800
27. When the projectors are parallel to each other and perpendicular to the plane, the projection is called :
- (A) Orthographic projection (B) Oblique projection
(C) Perspective projection (D) None of these
28. Which of the following is classified as a Group B building?
- (A) Residential Building (B) Educational Building
(C) Hospital Building (D) Factories

29. What is the shortcut key of Mirror command in AutoCad?
- (A) M (B) MI
(C) MT (D) MA
30. Which of the following is an operating system?
- (A) MS WORD (B) EXCEL
(C) WINDOWS (D) PHOTOSHOP
31. What is the clear cover to reinforcement for slab (mild exposure)?
- (A) Minimum 25 mm
(B) 15 mm or diameter of bar whichever is more
(C) 10 mm
(D) 40 mm or diameter of bar whichever is more
32. Slump value 100-150 mm is best suited for :
- (A) Road construction only
(B) Mass concrete
(C) Pavements using vibrators
(D) Pumped concrete/reinforced concrete
33. Minimum diameter of longitudinal bar for reinforcement in column will be :
- (A) 8 mm (B) 10 mm
(C) 12 mm (D) 16 mm
34. A slab is considered one way if ratio of longer span to shorter span is :
- (A) <1.5 (B) >2
(C) <2 (D) >3
35. If thickness of plate is 25 mm, what will be the diameter of rivet on it according to Unwin's formula?
- (A) 30 mm (B) 25 mm
(C) 20 mm (D) 35 mm

36. Main reinforcement in stem of cantilever retaining wall is provided :
 (A) On both faces equally (B) On front face
 (C) On back face (D) At center
37. In case of isolated slab having no continuous edge, torsion reinforcement for two-way slab is provided?
 (A) In mesh form top and bottom (B) Only bottom mesh
 (C) Only top mesh (D) Mesh not needed
38. Side face reinforcement is required when beam depth is greater than :
 (A) 250 mm (B) 500 mm
 (C) 750 mm (D) 1000 mm
39. Short columns generally have a slenderness ratio less than :
 (A) 128 (B) 32
 (C) 80 (D) 120
40. Concrete mix proportion of M20 grade concrete as per IS 456 : 2000 :
 (A) 1 : 2 : 4 (B) 1 : 1 : 2
 (C) 1 : 3 : 6 (D) 1 : 1 $\frac{1}{2}$: 3
41. Which of the following statements is / are correct about heart wood in the macrostructure of timber :
 (i) Heart wood consist of the inner annual rings surrounding the pith
 (ii) Heart wood is usually dark in colour
 (iii) Heart wood take active part in the growth of the tree
 (A) Only (i) & (ii) (B) Only (ii) & (iii)
 (C) Only (i) & (iii) (D) All of the above
42. Which of the following are the purposes of admixtures used in cement mortar or concrete?
 (i) Improve the workability
 (ii) Increase the bond strength between reinforcement and concrete
 (iii) Reduce bleeding and segregating effect of concrete
 (A) Only (i) (B) Both (ii) & (iii)
 (C) Both (i) & (iii) (D) All of the above

43. Which of the following statements is / are correct about the defects of timber?

- (i) Druxiness and Foxiness are defects due to natural forces
- (ii) Beetles, Marine bores and Termites are defects due to fungus
- (iii) Torn grain and wane are defects due to seasoning

- (A) Only (i) (B) Both (ii) & (iii)
(C) Both (i) & (ii) (D) Both (i) & (iii)

44. Which of the ingredient of paint determines the character of the paint and imparts durability to the surface which is painted?

- (A) Vehicle (B) Base
(C) Driers (D) Solvents

45. Match List 1 with List 2 and select the correct answer by using codes given below the lists:

	List 1		List 2
1.	Linseed Oil	(i)	Base
2.	White lead	(ii)	Vehicles
3.	Turpentine	(iii)	Driers
4.	Litharge	(iv)	Solvents

- (A) 1 – (iv), 2 – (iii), 3 – (i), 4 – (ii)
(B) 1 – (ii), 2 – (i), 3 – (iv), 4 – (iii)
(C) 1 – (iv), 2 – (i), 3 – (ii), 4 – (iii)
(D) 1 – (iii), 2 – (iv), 3 – (i), 4 – (ii)

46. Which of the following statements is / are correct about the types of sewers?

- (i) Main sewer receives discharge from a few branch or sub main sewers.
- (ii) Outfall sewer carries sewage to the treatment plant or final point of discharge
- (iii) Relief sewer receives discharge from two or more main sewers

- (A) Only (i) & (ii) (B) Only (ii) & (iii)
(C) Only (i) & (iii) (D) All of the above

47. In which system of sanitation, are the different types of refuses collected separately and then each type is carried and suitably disposed off?

- (A) Dry System (B) Conservancy system
(C) Water carriage system (D) Both (A) and (B)

48. The supernatant liquid discharge from a septic tank is :
(A) Scum (B) Effluent
(C) Sludge (D) Sullage
49. Sloping surfaces having slope in transverse direction constructed on either side of channels at the base of manholes or inspection chamber for the purpose of confining the flow of sewage, avoiding the accumulation of deposits and providing a safe working platform is known as
(A) Benching (B) Invert
(C) Access Shaft (D) Manhole cover
50. Which of the following is / are correct about the chemical formula of bleaching powder used in water treatment?
(i) Calcium hypochloride
(ii) Calcium hypochlorite
(iii) $\text{Ca}(\text{OCl})_2$
(A) Only (i) (B) Only (ii) & (iii)
(C) Only (i) & (iii) (D) All of the above
51. Which is the basic requirement of alignment?
(A) Crosses maximum number of bridges
(B) Short
(C) Lengthy straight routes
(D) Curves
52. Which is the highest point of a cross section of highway?
(A) Camber (B) Sub base
(C) Carriage way (D) Crown
53. Which is the classification of road according to importance?
(A) State highways (B) Second class
(C) Cement concrete (D) Express highways

54. Which transition curve is recommended by the IRC in the horizontal alignment of highway?
- (A) Spiral (B) Lemniscate
(C) Cubic parabola (D) Summit
55. Which is the temporary pier made in the river bed?
- (A) Kerb (B) Scuppers
(C) Afflux (D) Cribs
56. What is the shape of the wingwall if it is inclined at an angle of 45 degree in plan?
- (A) Straight (B) Return wall
(C) Square (D) Splayed
57. Which of the following statement is correct in case of deck bridge?
- (A) The flooring of the bridge which carries the traffic is supported at the top of the main girder of bridge
(B) The flooring of the bridge which carries the traffic is supported at the bottom of the main girder of bridge
(C) The flooring of the bridge which carries the traffic is supported at intermediate level of the main load bearing superstructure of bridge
(D) None of the above
58. The process of filling the ballast around the sleepers is known as:
- (A) Hogging (B) Conning
(C) Boxing (D) Crossing
59. Flat footed rails can be directly fixed on sleepers of Hardwood by:
- (A) Rail-chairs (B) Bearing plates
(C) Fish plates (D) Fish bolts
60. The manufactured length of Bull Headed Rail is usually:
- (A) 6.10 meter (B) 7.32 meter
(C) 18.29 meter (D) 12.00 meter

61. Ratio of cultivated area for a particular crop to the total culturable command area is known as:
- (A) Cultivation Ratio (B) Intensity of irrigation
(C) Crop Ratio (D) Capacity Factor
62. Which among the following crops has the highest base period?
- (A) Rice (B) Wheat
(C) Maize (D) Sugarcane
63. The discharge of a canal required for rice cultivation in an area of 3000 hectares, if duty is 1500 hectares/cumecs is:
- (A) 2 cu.m per s (B) 20 cu.m per s
(C) 200 cu.m per s (D) 450 cu.m per s
64. Which among the following statements is/are correct?
- (i) The plot of discharge of a river against time is known as Hyetograph.
(ii) The plot of rainfall intensity against time is known as Hydrograph.
(iii) Direct runoff is composed of total runoff and Baseflow.
- (A) Only (ii) and (iii) (B) Only (i) and (iii)
(C) All the above (D) None of these
65. The canal which is aligned along the ridge line is known as:
- (A) Contour canal (B) Watershed canal
(C) Side slope canal (D) Inundation canal
66. Which among the following cross drainage works is suitable when bedlevel of canal is below the highest flood level of the drainage underneath?
- (A) Aqueduct (B) Siphon Aqueduct
(C) Super passage (D) Level crossing

67. For crossing of a small irrigation channel with a small drainage, which among the following cross drainage works is suitable?
- (A) Aqueduct (B) Super passage
(C) Inlet and Outlet arrangement (D) Level crossing
68. Which crops are sown in the beginning of monsoon and harvested at the end of autumn?
- (A) Kharif crop (B) Rabi crop
(C) Cash crop (D) Perennial crop
69. Which among the following components are part of Diversion Head work?
- (i) Barrage
(ii) Scouring sluices
(iii) Silt excluder
(iv) Guide bank
- (A) Only (ii) and (iv) (B) Only (ii), (iii) and (iv)
(C) Only (i) and (iii) (D) All the above
70. Arrange the following canals based on the decreasing order of discharge capacity:
- (i) Field channel
(ii) Branch canal
(iii) Main canal
(iv) Distributory channel
- (A) (i)-(iv)-(ii)-(iii) (B) (iv)-(i)-(ii)-(iii)
(C) (iii)-(ii)-(iv)-(i) (D) (iii)-(ii)-(i)-(iv)

71. Observe the following and choose the correct statement.

	Estimate type	Use
(a)	Supplementary estimate	Additional work
(b)	Revised estimate	Cost likely to exceed sanctioned amount significantly
(c)	Annual repair estimate	Routine maintenance
(d)	Plinth area estimate	Detailed technical sanction

- (A) Only (a) and (b) are correct (B) Only (a), (b) and (c) are correct
(C) Only (d) is correct (D) All are correct

72. Consider the following statements regarding contingencies:

- (i) They cover miscellaneous petty expenses.
(ii) They are usually provided at 3% to 5% of estimated cost.
(iii) They are meant for major structural redesign only.
(iv) Savings under contingencies may be used with proper sanction.

Choose the correct option.

- (A) (i) and (ii) only (B) (i), (ii) and (iv) only
(C) (ii) and (iii) only (D) (i), (iii) and (iv) only

73. The list of rates of various items of work maintained by an engineering department is called

- (A) Analysis sheet (B) Rate chart
(C) Schedule of rates (D) Tender register

74. For plastering, no deduction is generally made for openings upto:

- (A) 0.1 sq.m. (B) 0.5 sq.m.
(C) 1.0 sq.m. (D) 3.0 sq.m.

75. Simpson's rule gives generally

- (A) Less accurate result than trapezoidal rule
(B) More accurate result for curved boundaries
(C) No relation to offsets
(D) Value only for rectangular plots

76. In an ISI door designation like 10 DT 21, what does the letter "T" represent?
- (A) Timber material (B) Triple frame
(C) Thickness indicator (D) Double shutter
77. Which type of flooring is perfectly noiseless and specifically chosen for specialized environments like libraries, theatres, and broadcasting stations?
- (A) Granolithic flooring (B) Tile flooring
(C) Cork flooring (D) Brick flooring
78. What is the maximum span limit for which a Single Joist Timber Floor is safely adopted in upper floor construction?
- (A) 2.4 m (B) 3.6 m
(C) 5.0 m (D) 7.5 m
79. Consider the following two statements regarding the components of a pitched roof truss:
- Statement I : A purlin is a longitudinal member fixed horizontally across principal rafters to provide intermediate support to common rafters or roof coverings.
- Statement II : A cleat is a small wooden block or steel angle piece fixed to the principal rafter strictly to prevent the purlin from sliding down the slope.
- Which of the following is correct?
- (A) Statement I is true, but Statement II is false
(B) Statement I is false, but Statement II is true
(C) Both Statement I and Statement II are true
(D) Both Statement I and Statement II are false
80. Which roof covering material consists of thin, sawn, or split pieces of well-seasoned timber and is primarily restricted for use in hilly areas?
- (A) Slates (B) Wood shingles
(C) Ruberoid rolls (D) Asbestos cement sheets
81. The sketch prepared during reconnaissance survey is known as:
- (i) hand sketch
(ii) index sketch
(iii) rough sketch
(iv) key plan
- (A) Only (i) and (iii) (B) Only (ii) and (iv)
(C) Only (i) and (iv) (D) Only (ii) and (iii)

82. The main object of surveying is :
(i) Preparation of plan
(ii) Preparation of map
(iii) Both (i) and (ii)
(iv) None of these
(A) Only (i) and (iii) (B) Only (ii) and (iii)
(C) Only (i) and (iv) (D) Only (i) and (ii)
83. In contour survey which method is also known as spot levelling?
(A) Tacheometric method (B) Direct method
(C) Square method (D) Cross section method
84. In plane table survey three point problem can be solved by:
(A) By mechanical method (B) By graphical method
(C) By trial and error method (D) All of these
85. How many methods for using elimination of local attraction?
(A) One (B) Two
(C) Three (D) Four
86. Find the magnetic declination if the magnetic bearing of sun at noon is 185 degree :
(A) 3 degree West (B) 5 degree West
(C) 3 degree East (D) 5 degree East
87. The line joining intersection of crosshairs and optical centre of object glass is called:
(A) line of collimation (B) axis of telescope
(C) line of sight (D) Both (A) and (C)
88. _____ may be defined as the line lying on the surface of the ground with uniform inclination to the horizontal.
(A) Contour interval (B) Horizontal equivalent
(C) Contour gradient (D) Horizontal distance
89. The angles measured clockwise from the preceeding line to following is:
(A) Direct angle (B) Angles to right
(C) Azimuths from back line (D) All of these

90. The backsight reading at A is 3.560 m and the foresight reading at B is 2.860 m. Find the difference in level of A and B :
- (A) 0.5m (rise from A to B) (B) 0.7m (rise from A to B)
(C) 0.7m (fall from A to B) (D) 0.5m (fall from A to B)
91. The centroid of a semicircle of radius 'R' from its base is:
- (A) 0.212R (B) 0.478R
(C) 0.424R (D) 0.238R
92. For a ductile material, the correct sequence of stresses is:
- (A) Ultimate stress < Yield stress < Breaking stress
(B) Breaking stress > Ultimate stress > Yield stress
(C) Yield stress > Ultimate stress > Breaking stress
(D) Yield stress < Ultimate stress > Breaking stress
93. The slope of stress-strain curve in elastic region represents:
- (A) Modulus of Elasticity (B) Ductility
(C) Toughness (D) Strength
94. A body placed on a rough inclined plane will just start sliding when the angle of inclination is called:
- (A) Angle of projection (B) Angle of friction
(C) Angle of contact (D) Angle of repose
95. If a force is resolved into two perpendicular components of 6 N and 8 N, then the magnitude of the original force is:
- (A) 12 N (B) 10 N
(C) 14 N (D) 48 N
96. Consider the following statements about 'Modulus of Elasticity':
- (i) It is constant for a given material.
(ii) It depends on dimensions of specimen.
(iii) It depends on temperature.
- Which of the above statements are correct?
- (A) (i) and (ii) only (B) (i) and (iii) only
(C) (ii) and (iii) only (D) (i), (ii) and (iii)

97. The forces, which do not meet at one point, but their lines of action lie on the same plane are known as:

- (A) coplanar non-concurrent forces (B) coplanar concurrent forces
(C) non-coplanar concurrent forces (D) non-coplanar non-concurrent forces

98. Match List I with List II and select the correct answers using the codes given below the lists:

List I (Shape)

List II (Moment of Inertia)

- | | |
|-------------------------------------|-----------------|
| (a) Triangle about base | (i) $bh^3/12$ |
| (b) Rectangle about centroidal axis | (ii) $bh^3/36$ |
| (c) Triangle about centroidal axis | (iii) $bh^3/12$ |
| (d) Rectangle about base | (iv) $bh^3/3$ |

(a) (b) (c) (d)

- (A) (iii) (iv) (ii) (i)
(B) (ii) (i) (iii) (iv)
(C) (iii) (i) (ii) (iv)
(D) (i) (iv) (ii) (iii)

99. A ladder is resting on a smooth ground and leaning against a rough vertical wall. The force of friction will act :

- (A) Downward at its upper end
(B) Upward at its upper end
(C) Towards the wall at its upper end
(D) Away from the wall at its upper end

100. Varignon's theorem of moments states that if a number of coplanar forces acting on a particle are in equilibrium, then

- (A) their lines of action are at equal distances
(B) their algebraic sum is zero
(C) the algebraic sum of their moments about any point is equal to the moment of their resultant force about the same point
(D) the algebraic sum of their moments about any point

SPACE FOR ROUGH WORK

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